Having thus described the invention, what is claimed is:

1. A process for creating a porous polymeric body, comprising the steps of:
   a. dissolving a polymer in a first solvent to create a solution;
   b. adding a second solvent to the solution that causes the solvent/polymer solution to thicken into a gel;
   c. forming the gel into a desired shape; and
   d. removing the first and second solvent from the gel.

2. The process of claim 1, wherein forming of the polymer gel comprises spreading the gel onto an open smooth or textured surface.

3. The process of claim 1, wherein forming of the polymer gel comprises injecting the gel into a mold.

4. The process of claim 1, wherein forming of the polymer gel comprises spreading or injecting the gel over a three-dimensional object, and removing the three-dimensional object after removing the first and second solvent from the gel.

5. The process of claim 1, wherein forming of the polymer gel involves forcing a three-dimensional object into a volume of the gel, and removing the three-dimensional object after removing the first and second solvent from the gel.

6. The process of claim 1, wherein a biologically active agent is mixed with the polymer and first solvent prior to addition of the second solvent.

7. The process of claim 1, wherein a biologically active agent is mixed with the second solvent prior to addition to the first solvent/polymer solution.

8. The process of claim 1, wherein a biologically active agent is mixed with the gel prior to removal of the first and second solvents.

9. The process of claim 1, wherein a biologically active agent is incorporated within the pores of the polymeric body after removal of the first and second solvent.

10. The process of any of claims 6, 7, 8 or 9, wherein the biologically active agent is selected from one or more of the following: physiologically acceptable drugs, surfactants, ceramics, hydroxyapatites, tricalciumphosphates, antithrombogenic agents, antibiotics, biologic modifiers, glycosaminoglycans, proteins, hormones, antigens, viruses, cells or cellular components.

11. The process of claim 1, wherein the gel is placed in contact with a separate body, after which the first and second solvent are removed, leaving the porous polymer mechanically bound to the body.

12. The process of claim 1, wherein the polymer comprises a polyurethane.

13. The process of claim 11, wherein the first solvent comprises at least one solvent selected from the group comprising dimethyl acetimide, n-methyl pyrrolidinone and tetrahydrofuran.

14. The process of claim 12, wherein the first solvent comprises tetrahydrofuran, and the second solvent comprises at least one solvent selected from the group comprising p-dioxane, dimethyl sulfoxide and o-xylene.

15. A process for creating a composite body comprising a porous polymeric body using a gel enhanced phase separation technique , the process comprising the steps of:

a. dissolving a polymer in a first solvent to form a solution;
b. adding a second solvent that causes the solvent/polymer solution to thicken into a gel;
c. placing the gel in contact with at least one other material; and
d. removing the first and second solvent, thereby leaving a porous polymer and the at least one other material, wherein said porous polymer and said at least one other material are mechanically bound to each other.

16. The process of claim 15, wherein the other material is biodegradable.

17. The process of claim 15, wherein the other material provides reinforcement to the porous polymer.

18. The process of claim 17, wherein the other material is in the form of reinforcing threads.

19. The process of claim 15, wherein the other material is in the form of reinforcing rings.

20. The process of claim 15, wherein the other material aids in attaching the porous polymer prosthesis to host tissue.

21. The process of claim 16, wherein the other material is in the form of a suture.

22. The process of claim 16, wherein the other material is in the form of a tack.

23. The process of claim 15, wherein the other material is a biologically active agent.

24. The process of claim 23, wherein the biologically active agent is selected from one or more of the following: physiologically acceptable drugs, surfactants, ceramics, hydroxyapatites, tricalciumphosphates, antithrombogenic agents, antibiotics, biologic modifiers, glycosaminoglycans, proteins, hormones, antigens, viruses, cells or cellular components.

25. The process of claim 15, wherein the composite body is a component of a larger body.